

to three-eighths of an inch, and the width a little over one-eighth of an inch. In texture they are paper-like; in color they differ scarcely at all from the dull gray and brown of the twig. Their most distinctive feature, noticeable only on close inspection, is the presence of fine cross-striations due to very many parallel lines of silk loops or points, darker in color than the background and standing up like the pile on velvet. The flat side of the cocoon, applied to the twig, is white. Old cocoons have a weathered appearance and show little trace of the striation mentioned above. Each has also, near the down twig end, a small opening through which the young spiders escaped.

Quite a number of spiders in one locality made the mistake of attaching their cocoons to a red-painted foot-bridge across a small creek. In this situation their gray tints made them very conspicuous, in fact, noticeable at some distance.

Each cocoon contains from five to twelve pale buff eggs which adhere slightly, although they cannot be called agglutinate. A few freshly spun cocoons were found during the first half of September, but it was not until some two or three weeks later that the majority of the females laid their eggs. Upon the advent of cold weather the eggs were still unhatched, so it is likely that they remain in that condition until spring.

Two New Species of North American *Stenopelmatinae* (Orthoptera).

BY JAMES A. G. REHN.

Pristocenthophilus marmoratus n. sp.

Type: ♂; Mountains near Claremont, Los Angeles Co., California. (C. F. Baker). Collection Academy Natural Sciences, Phila.

Allied to *P. rhoadsi* Rehn, from Urnapau, Mexico (Trans. Amer. Ent. Soc., xxix., p. 17), but differing in the slenderer antennae, the strongly tuberculate abdomen, and the slenderer posterior tibiae and tarsi.

Size rather small, form elongate fusiform, the dorsum very distinctly arched. Head with the vertex declivent, the acute fastigial process directed forward and downward, somewhat depressed, apex rather blunt; interspace between the eyes broad; eyes sub-trigonal, not prominent; antennæ approximately twice as long as the body; fifth palpal joint slightly longer than the third, slender, the apical two-thirds with the axis at an obtuse angle with the basal third. Pronotum strongly convex in transverse section; anterior and posterior margins truncate, lateral lobe with the inferior margin subtruncate. Mesonotum and metanotum with their exposed portions subequal; posterior margins subtruncate; lateral lobes with the inferior margin obliquely truncate, extending considerably below the level of the pronotum; surface of the mesonotum almost as smooth and glabrous as the pronotum, metanotum with the anterior portion glabrous, but bearing a transverse series of numerous low obscure tubercles. Abdomen somewhat compressed; posterior portion of the ventral surface of each segment ornamented with transverse series of irregularly sized tubercles, more distinct and more numerous than on the metanotum; cerci rather short, hardly as long as the subgenital plate; subgenital plate broad, apically with two distinct carinæ extending from the base of the styles half way to the base, apical margin broadly and shallowly emarginate; styles thick, short, apically acute. Anterior femora a third again as long as the pronotum, anterior margin with a single pre-apical spine, posterior margin unarmed. Median femora slenderer than the anterior but of the same length, anterior margin with a single pre-apical spine, posterior margin with a slender genicular spine, a distinct pre-apical spine, and several smaller depressed spines. Posterior femora about as long as the head and body united, considerably inflated, slightly more than three times as long as broad, external inferior margin very minutely serrulate; internal inferior margin very distinctly serrulate, except in the genicular portion; tibiæ about one-tenth longer than the femora slightly sinuate in the proximal half, four pair of spurs present, minor serrations distinct and sharp, calcaria with the medium pair over twice the length of the others, under surface with six paired adpressed spines on the apical section; metatarsi slightly longer than the remaining tarsal joints combined, second over twice the size of the third.

General color ochraceous and ochraceous-buff marbled and finely sprinkled with blackish brown; posterior femora with the scalariform markings distinct, and the posterior tibiæ rather imperfectly annulate.

MEASUREMENTS.

Length of body	10. mm.
Length of pronotum	3.5 "
Greatest width of pronotum	3.6 "
Length of posterior femora	9.8 "
Length of posterior tibiæ	10.5 "

Phrixocnemis inhabilis n. sp.

Type: ♀; St. Louis, Missouri. November 15, 1903. Collection of Morgan Hebard.

Allied to *P. bellicosus* Scudder from Colorado, but differing chiefly in the somewhat larger size, stouter antennæ, shorter posterior femora, and more regularly disposed spurs of the posterior tibiæ.

Size medium, form obese, surface smooth. Head short and broad; vertex depressed, subvertical; interspace between the eyes very broad; eyes roughly diamond-shaped, distinctly projecting; palpi with the fifth joint very slightly longer than the third, curved, excavated below for a slight distance from the tip; antennæ about equal to the body in length. Pronotum slightly compressed, rotundato-arcuate in transverse section; anterior and posterior margins subtruncate, lateral lobes with the inferior margin truncate. Mesonotum and metanotum with the exposed portions subequal, posterior margins truncate; lateral lobes slightly deeper than those of the pronotum, inferiorly arcuate. Abdomen little compressed; supra-anal plate trigonal; cerci tapering, about half as long as the ovipositor; subgenital plate transverse, rotundate; ovipositor slightly arcuate, robust, regularly decreasing in width, slightly more than half the length of the posterior femora, apex obliquely truncate with the upper point produced into a distinct spiniform process, inner valves with five distinct apical hooks. Anterior femora slightly longer than the pronotum, inferior margins unarmed. Median femora bearing two to three spines on each of the inferior margins, no genicular spine present. Posterior femora about two-thirds the length of the body, moderately expanded, slightly more than three times as long as broad, genicular region not constricted, inferior margins moderately serrato-dentate, intervening sulcus broad; posterior tibiæ slightly shorter than the femora, moderately arcuate, four pair of strong spurs present, calcaria stout, those of the external face subequal, the internal face with the two superior ones subequal and considerably longer than the inferior one, inferior surface with an apical pair of adpressed spines, and a few inconspicuous scattered spinules; posterior metatarsi about equal to the fourth tarsal joint, second and third joints subequal.

General color ferruginous, the abdominal segments suffused with chestnut; eyes blackish.

MEASUREMENTS.

Length of body	11.5 mm.
Length of pronotum	4.3 "
Greatest width of pronotum	5.1 "
Length of posterior femora	8.2 "
Length of posterior tibiæ	7.2 "
Length of ovipositor	5.5 "